

**Amendments to the Specification:**

Please replace paragraph [0027] with the following amended paragraph:

A1 [0027] In addition to the jogging tray 43, a paddle 62 is mounted for movement between the side walls 47 and 45. The paddle ~~64~~62 is mounted on an arm 63 of a bracket 65. The arm 63 passes through a slot 67 in the back wall 49. The bracket 65 is mounted on two guide rods 68, 69 and a lead screw 71. The lead screw 71 has a pulley 73 attached at one end thereof and is operatively connected to a motor 75 via an endless belt 77 that extends around the pulley 73 and a second pulley 79 connected to a shaft of the motor 75. Accordingly, as the bi-directional motor 75 is energized, the lead screw 71 is forced into rotation causing a corresponding movement in the bracket 65 along the lead screw 71 and the guide rods ~~67~~68, 69. A controller 81 is operatively connected to the motor 75 to control the supply of power from a power source 82 to the motor 75. The controller 81 therefore controls the movement of the paddle 62 between the side walls 45, 47. The controller 81 and power source 82 are typically mounted on a table (not shown) upon which the jogging system 41 is placed.

Please replace paragraph [0029] with the following amended paragraph:

A2 [0029] When the mailpieces 87 are to be removed, the controller 81 will activate the motor 75 to move the paddle 62 toward side wall 45. A projection ~~93~~53 on paddle 62 will contact and activate a second switch 95 on ~~rear~~side wall 45. Upon activation of the second switch 95, a signal is sent to the controller 81. Upon receipt of the signal from the second switch 95, the controller 81 stops the movement of the paddle 62.

Please replace paragraph [0032] with the following amended paragraph:

A3 [0032] Referring to Figures 6 and 7, an inventive detection system 101 is shown incorporating the inventive jogger system 41. The detection system 101 has eliminated the need for a banding device 17 because the jogger system 41 includes compression apparatus as described above. In operation, the mailpieces 87 are placed in a conventional jogger system 11 in order to register the corners of the mailpieces 87 over the opening 55 as discussed above (601). The registered mailpieces 87 are then placed in the corner snipper 13 where their corners are cut open (603). The mailpieces 87 with the cut corners are placed in the jogger tray 41 of the jogger system 41 (605). Next a start button 99 is depressed by the operator which signals the controller that compression of the mailpieces is required. The controller 81 energizes the motor 75 to move the paddle 62 from the home position at switch 95 into contact with the mailpieces 87. The paddle 62 is driven until the switch 91 is activated by movement of the plate 83. At this point in time the mailpieces 87 are in a compressed state (607). Upon receipt of the signal from activated switch 91, the controller 81 causes the motor 75 to retract the paddle 62 a small distance such that the mailpieces 87 decompress by filling with air (609). At this point in time the jogger device 97 is switched on (in a conventional manner) to vibrate the jogger tray 43 for a predetermined period of time, such as one minute (611). The controller 81 is designed to move the paddle 62 to perform a compression operation as described above once every 20 seconds. Accordingly, during the vibrating of the jogger tray 43 the mailpieces 87 will be compressed and decompressed at the 20 second and 40 second time intervals during the one minute vibration period (613). Once the vibrating cycle is finished (jogger device) stopped, the paddle 62 returns to the home position and the mailpieces 87 are removed and set aside until the results of the testing at the first and second air-monitoring systems 19, 21 has been completed (615). The processing of the mailpieces 87 subsequent to obtaining the air-monitoring tests are the same as shown in Figure 36 (617). If the testing is negative steps 323, 325, and 327 are

A3  
cml performed except that the removal of the band from the mailpieces 87 is not required.  
If the testing is positive step 329 is performed.

Please replace paragraph [0040] with the following amended paragraph:

A4  
[0040] After completion of the jogging operation, the jogged and registered envelopes are then ~~are~~ placed on infeed platform 809 with the edges, that are opposite from the edge where the contents were shifted to during jogging, facing down. The mailpieces 87 are fed to the cutter wheels 803, 805 where they are cut in a manner discussed in more detail below. As the mailpieces 87 are cut, any biological powder material falling off or out of the mailpieces 87 collects below the cutter wheels 803, 805 and in a chamber (not shown) contained within the housing 807 below the structure shown in Figure 8. The ductwork 23 is connected through an opening 845 in communication with the chamber so that the biological powder material will be extracted through the ductwork 23 for analysis as previously discussed.

Please replace paragraph [0041] with the following amended paragraph:

[0041] Referring specifically to Figures 9-11, a first embodiment of the cutter wheels 803, 805 shall be discussed. Belt 821 is driven by a motor 843 via a pulley and belt system 844 and a shaft 845 in order to drive individual mailpieces 87 into a nip 846 defined between the cutting edges 847 and 849 of respective cutter wheels 803, 805. As belt 821 is driven, so is the cutting wheel 805 which is also mounted on shaft 845. The overlap of the ~~beveled~~ cutting edges 847 and 849 also causes a rotation of cutter wheel 803 about a shaft ~~847~~ 848. Accordingly, as the mailpieces 87 are fed along the arrow "A" into nip 846, the bottom of the mailpieces 87 is cut by the interaction of edges 847, 849 to produce the slots 851 shown in Figure 11. The ability to produce the slots 851 is made by providing the cutter wheel 803 with notches 855 that are located around the perimeter of the cutter wheel 803. The notches 855 provide areas 857 of discontinuity in the cutting edge 847. It is the discontinuities 857

that produce corresponding uncut areas 853 in the mailpiece 87 while each section of the cutting edge 847 between two discontinuities 857 produces a single slot 851. It is to be noted that in prior art systems, such as that shown in United States Patent No. 3,828,634 (which is hereby incorporated by reference) two cutting wheels are used that are similar to cutter wheel 805 in that the cutting edges extend around the perimeter in an unbroken manner. Thus, in the prior art the result was that an entire bottom edge of the envelope was completely removed opening the entire bottom of the envelope to permit the extraction of the envelope contents.

(Please replace paragraph [0042] with the following amended paragraph:)

Q4 [0042] In the instant invention, while the slots ~~51~~851 provide openings through which powder material can be expelled and tested in the detection system 101, the solid portions 853 remain intact so that the bottom edge 854 of the mailpiece 87 remains in place. Therefore, the contents inside the mailpiece 87 remain contained therein preserving the privacy of the contents and permitting the mailpiece 87 to be further processed for final delivery through the normal mail processing system if it is not contaminated. The plurality of slots 851 provide a greater amount of open area for the powder material to fall through as compared to the opening created at the corner of the mailpiece 87 by the corner snipper 13.

(Please replace paragraph [0043] with the following amended paragraph:)

[0043] Figure 12 shows a second embodiment where the cutter wheel 803 has been replaced by the cutter wheel 859. The cutter wheel 859 is similar to the cutter wheel 803 but further includes vertically extending cutting edges 861 at each side of the notches 855. Further, a circular urethane wheel 862 has been mounted on shaft 845 directly below cutter wheel 805 to rotate therewith. Accordingly, as the mailpieces 87 pass between a nip 863 the bottom of the mailpiece 87 is cut in a castellated appearance whereby a plurality of segments 865 of the lower edge 864 have been

removed to produce a plurality of edge openings 867. The openings 867 allow any powder material to pass therethrough during the jogging and compression/decompression cycles while the uncut edge segments 869 retain the contents within the mailpiece 87. Once again, the opened area of the mailpieces 87 are significantly increased over a cut corner opening to allow more opportunity for powder material to escape during the jogging and compression/decompression cycles.

( Please replace paragraph [0044] with the following amended paragraph: )

AM [0044] Additional advantages and modifications will readily occur to those skilled in the art. Therefore, the invention in its broader aspects is not limited to the specific details, and representative devices, shown and described herein. Accordingly, various modifications may be made without departing from the spirit or scope of the general inventive concept as defined by the appended claims. For example, the following are representative examples of such modifications:

1. The functions of the controller ~~82~~81 and power supply 82 can be integrated in the jogger device 97 so that by pressing a single switch the entire jogging and compression/decompression cycles will automatically be executed. Moreover the jogging cycle can be initiated first with the compression/decompression cycles occurring during the jogging cycle.

2. The cutter wheel 803 can be modified to have any number of notches ~~55~~55 and cutting edges 861 in order to vary the number of slots 851 and openings 867 that are made during cutting. Further, different notches can be of a different size to produce slots 851 and openings 867 of different sizes. Additionally, the notch can be sized to produce only a single larger slot 851 or opening 867.

3. The urethane wheel 862 can be made of other materials that provide a proper backing for cutting and which does not damage the cutting edges 861. Further, the urethane wheel can be integrated on the cutting wheel 860.

4. The cutter wheels of Figures 11 and 12 can be used alone separate from the mail opening device 801 for cutting the envelopes in the inventive manner. However, by using the mail opening system in conjunction therewith the initial jogging and the cutting features are integrated within a single unit.

5. While two specific air-monitoring tests are shown, only one may be implemented. Further, the invention contemplates any type of testing that can be performed on the expelled air to detect any type of contamination.

6. Additionally, the cutter wheel 805 can also be modified to include the notches and or vertical cutting edges as well.